

Gulf of the Farallones and Cordell Bank National Marine Sanctuaries De-Brief Meeting

The following recommendations were derived from a pilot debriefing held after the GF/CBNMS missions. They are provided to help other SSE pilots gain a better understanding of the challenges we are facing, as well as some ideas on how to circumvent potential problems. Pilot debriefings will be held at the end of each mission so their experiences can be shared with pilots that are scheduled for future SSE missions.

I. ON-SITE TRAINING:

Prior to mission:

Review DeepWorker Training materials

Review Camera system and photography basic handouts provided by Kip Evans and Emory Kristoff (accessible on the internal SSE Web site in the 'FOR PILOTS' folder

<http://sseplanning.nos.noaa.gov>)

Review the Desert Star systems Web site (will be posted on internal SSE Web site)

While on board:

Monitor comms as much as possible during dive operations

Familiarize yourself with the subs when they are not in use

Participate in pre-dive and post-dive procedures

Study the emergency procedures

Keep up-to-date on the modifications of submersibles -- they will continue to occur

Focus on teamwork to keep the sub turn around time to a minimum

Action Items:

K. Evans or appointee will provide onboard training classes to further the pilot's knowledge of camera systems available on the sub

K. Evans or appointee will alert pilots of what National Geographic has in mind for photo opportunities during individual missions

K. Evans or appointee will provide a quick summary of using actual camera systems and a summary for processing images, videos, etc. in the plotting room

D. Lott will provide a summary of Winfrog's capabilities (accessible on internal SSE Web site and aboard the ship)

II. SUBMERSIBLE OPERATIONS:

Pre-Dive Operations

Check camera systems and make sure new video, film, and dat tapes are loaded properly

Check weather buoys and weather forecasts

Dive Operations

Nuytco pilots will dive first dive to new depths in sub

Use Dat voice recorder in sub

Battery voltage is an issue on good weather days (dives tend to get shorter as the

day goes on)

Post-Dive Operations

Add to post-dive checklist:

Desert Star track file recorded and saved (file name?)

Winfrog events saved and saved (file name?)

Number of photos taken and speed of film used?

Dat tapes and video taken off of the sub?

Action Items:

John McDonough and Ian Griffith will update the dive forms to account for the data (film, video, etc.) that is collected during submersible operations

Notes:

Desert Star tracking in sub would be helpful in sub for transects

Replacement for K. Evans when he is off ship to process the flow of data and images would be useful (if berthing space permits)

Mission Coordinator is extremely busy aboard the ship and needs to delegate tasks such as allowing pilots to organize (filling out the spreadsheet and labeling) their own data (DV and Dat tapes, film, etc.) from the sub and be responsible for pre- and post-dive forms and filing them in the proper location for future use by the Mission Coordinator and SSE

III. RESPONSIBILITIES FOR MANAGING DATA:

Data Recorder:

Participates in pre- and post-dive briefings

Fills out all dive forms properly

Ensures Winfrog and Desert Star events begin and are being recorded

Reminds pilots to change DV, Dat tapes during dive

Photographer or appointee:

Ensures proper handling of all DV and Dat tapes and film, including video and film shot using the ROV

Mission Coordinator:

Participates in pre- and post-dive briefings

Delegates tasks to be completed by individual pilots

Ensures all tapes, film canisters, and other dive-related materials are properly processed and labeled

Ensures proper dissemination and archiving of data

Keeps the data/information accounting system up-to-date

Transmits materials to shore as opportunity arises while underway

Pilots:

Participate in pre- and post-dive briefings

Hand off DV, Dat tapes and film to photographer

Prepare a Dive Plan to present at the pre-dive briefing

Prepare a Post-Dive Debriefing form

IV. SHIP OPERATIONS:

Pre-load ship with supplies (i.e. paper and toner)

Replenish floppy discs, zip/jaz discs (IBM and MAC)

V. CONTINGENCIES:

Know your leas for a contingency plan

Possible ROV use as last ditch contingency plan

Note: The ship uses the following criteria for deciding on submersible operations:

Diving the sub while on the hook (general limits for the NOAA ship McArthur)

Max. 20 knot winds

Max 4' seas

Less than 2 miles visibility

Less than 1 knot of current

Diving while underway (general limits for the NOAA ship McArthur)

Max. 15 knot winds

Max 4' seas

Less than 2 miles visibility

Less than 1 knot of current

VI. GENERAL RECOMMENDATIONS

Keep a clear/simple chain of command

Need to test live operations

Be aware of surface currents (difficult recovery of sub)

Make use of existing partnerships with U.S. Coast Guard (air visual ops of work area for weather updates)

Bring warm, wool socks for the sub

Rooms on board ship are often quite cold

Keep non-SSE night operations flexible

Modifications on sub will occur throughout the cruise, keep up to speed

Mission Coordinator must keep communication with the ship's Operations Officer going continually

Mission Logs are an important task to accomplish during the day (typically include 2-4 pictures for each log submission to shore-based web team)

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